

FLAT IMPLANT, METHOD FOR ITS MANUFACTURE AND USE IN SURGERY

CLAIMS

1. Flat implant for use in surgery with a flexible fabric formed from at least two substantially independently constructed textile fabric structures, which are firmly interconnected over the entire surface of the implant to form a composite structure.
2. Implant according to claim 1, characterized in that substantially all the composite components are formed from monofilaments, preferably exclusively from monofilaments.
3. Implant according to claim 1, characterized in that a monofilament has a thickness of 10 to 500 μm , particularly 100 to 150 μm .
4. Implant according to claim 1, characterized in that the individual textile fabric structures are formed as net structures, particularly knitted net structures.
5. Implant according to claim 1, characterized in that the at least two nets have a substantially different structure, particularly a different binding construction.
6. Implant according to claim 1, characterized in that at least one fabric structure has openings with a preferably substantially hexagonal shape.
7. Implant according to claim 1, characterized in that the individual textile fabric structures have a pore structure with pore sizes of 0.1 to 10 mm, particularly 0.5 to 5 mm.
8. Implant according to claim 1, characterized in that the

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9. Implant according to claim 1, characterized in that the textile fabric structures are interconnected by knitting.

10. Implant according to claim 1, characterized in that the textile fabric structures, particularly net structures, are so mutually associated that their structure pores, particularly openings are not aligned and in particular overlap roughly by half.

11. Implant according to claim 1, characterized in that it is at least partly absorbable in vivo.

12. Implant according to claim 1, characterized in that at least one of the textile fabric structures, particularly one having hexagonal openings, is formed substantially from non-absorbable material and at least one other of the textile fabric structures is substantially formed from absorbable material.

13. Implant according to claim 1, characterized in that a filamentary material for joining the textile fabric structures is formed from absorbable material.

14. Implant according to claim 1, characterized in that the absorbable and non-absorbable materials are present in a ratio of 90:10 to 10:90, particularly in a ratio of 30:70 to 70:30 and preferably 50:50.

15. Implant according to claim 1, characterized in that by the in vivo degradation of the absorbable material, it is possible to increase the pore size of openings of the implant.

16. Implant according to claim 1, characterized in that the non-absorbable material has a weight per unit area of up to 50 g/m², particularly up to 40 g/m².

17. Implant according to claim 1, characterized in that the non-absorbable material has a strength of 16 to 50 N/cm.

18. Implant according to claim 1, characterized in that it has a bursting pressure of 100 to 300 kPa.

19. Implant according to claim 1, characterized in that it has a bursting elongation of 20 to 50 mm.

20. Implant according to claim 1, characterized in that its extensibility measured in the longitudinal, transverse and diagonal directions in each case differs by no more than 50% and in particular has substantially identical values.

21. Implant according to claim 1, characterized in that its tearing strength measured in the longitudinal, transverse and diagonal directions in each case differs by no more than 50% and in particular has substantially identical values.

22. Implant according to claim 1, characterized in that the non-absorbable material is selected from the group comprising polypropylene, polytetrafluoroethylene, polytetrafluoroethylene-hexafluoropropylene copolymer, polyethylene terephthalate, polybutylene terephthalate, as well as their mixtures, copolymers and terpolymers.

23. Implant according to claim 1, characterized in that the absorbable material is selected from the group comprising polyglycolide, polylactide, polydioxanone, polyhydroxybutyric acid, polycaprolactone, polytrimethylene carbonate, polytetramethylene carbonate, as well as their mixtures, copolymers and terpolymers.

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24. Implant according to claim 1, characterized in that it is in the form of a belt.

25. Method for the manufacture of an implant by forming at least two independent textile fabric structures and joining said textile fabric structures over their surface area to form a composite structure in the form of a flexible fabric.

26. Method according to claim 25, characterized in that the textile fabric structures in the form of knitwear are in particular produced by knitting.

27. Method according to claim 25, characterized in that the textile fabric structures are joined together by textile procedures, particularly by knitting during their joint production.

28. Use of the implant according to claim 1 in surgery, particularly for treating defects in body cavities, particularly for supporting and holding body organs.

29. Use of the implant according to claim 1 in surgery as a urinary incontinence belt for supporting the female urethra.

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